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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,504	12/08/2003	Stephen K. Cunnigan	2002-0552.02	2337
21972 7590 10/30/2007 LEXMARK INTERNATIONAL, INC. INTELLECTUAL PROPERTY LAW DEPARTMENT 740 WEST NEW CIRCLE ROAD BLDG. 082-1 LEXINGTON, KY 40550-0999			EXAMINER LEE, CHEUKFAN	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 10/30/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/730,504	CUNNIGAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cheukfan Lee	2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-8 and 18-20 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,9,10 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 3,11, and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/8/03</u> . | 6) <input type="checkbox"/> Other: _____  |

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1. Claim 1-20 are pending. Claims 1, 6, 9, and 18 are independent.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4, 5, 9, 10, and 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Lien et al. (U.S. Patent Application Publication No. US 2003/0202219 A1).

Regarding claim 1, Lien et al. discloses all subject matter claimed (Figs. 2A, 2B, 4A, and 4B, paragraphs 0020-0024 and 0032-0035). The method of Lien et al. comprises obtaining a scanner having a subscan axis (Y) and having a scan bar (110), wherein the scan bar (110) includes a longitudinal axis and includes a plurality of sensor elements disposed in a substantially linear array substantially along the longitudinal axis, wherein the scan bar (110) is tilted with respect to a reference axis (X) at a substantially nonzero angle (Fig. 4B) which is fixed during any image scanning of the image used to create the final scanned image, wherein the reference axis (X) lies substantially in a plane defined by the subscan axis (Y) and the longitudinal axis, and wherein the reference axis (X) is substantially perpendicular to the subscan axis (Y),

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and image scanning the image by relatively moving the scan bar (110) over the image along the subscan axis (Y) (Figs. 2A, 2B, 4A and 4B).

Regarding claim 2, the image is disposed on a substantially rectangular sheet of paper (refer to Fig. 4B). The subscan axis (Y) is substantially parallel to or substantially assigned with the length axis of the paper, and the reference axis (X) is substantially parallel to or substantially aligned with the width axis of the paper.

Regarding claim 4, the angle has a particular value which has been fixed during manufacturing of the scanner (Figs. 2B and 4B, paragraphs 0021-0024).

Regarding claim 5, the angle has a value between and including thirty degrees and forty-five degrees (Figs. 2B and 4B, paragraphs 0021-0024).

Regarding claim 9, "one" is selected from the limitation "at least one substantially linear array" on line 4 of the claim for the purpose of the invention. The method of lien et al. comprises obtaining a scanner having a subscan axis (Y) and having a scan bar (110) (Figs. 2A, 2B, 4A, and 4B, paragraphs 0020-0024 and 0032-0035), wherein the scan bar (110) includes a longitudinal axis and includes a plurality of sensor elements disposed in one substantially linear array, wherein the array lies substantially in a plane defined by the subscan axis (Y) and the longitudinal axis, wherein the array is tilted with respect to a reference axis (X) at a substantially nonzero angle which is fixed during image scanning of the image used to create the final scanned image, and wherein the reference axis (X) lies in the plane and is substantially perpendicular to the subscan

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axis (Y), and image scanning the image by relatively moving the scan bar (110) over the image along the subscan axis (Y).

Regarding claim 10, the image is disposed on a substantially rectangular sheet of image media (refer to Fig. 4B). The subscan axis (Y) is substantially parallel to or substantially aligned with the length axis of the image media. The reference axis (X) is substantially parallel to or substantially aligned with the width axis of the image media.

Regarding claim 12, the angle has a particular value which has been fixed during manufacturing of the scanner (Figs. 2B and 4B, paragraphs 0021-0024).

Regarding claim 13, the angle has a value between and including thirty degrees and forty-five degrees (Figs. 2B and 4B, paragraphs 0021-0024).

Regarding claim 14, the one substantially linear array consists of a single array (Figs. 2B and 4B).

Regarding claim 15, the single array is aligned substantially along the longitudinal axis of the scan bar, and the longitudinal axis is tilted at the angle with respect to the reference axis (X) (Figs. 2B and 4B).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lien et al. (US Publication No. US 2003/0202219 A1) in view of well known art.

Regarding claim 16, the method of Lien et al. is discussed above for claim 9. Lien et al. differs from the claimed invention in that the linear array of Lien et al. consists one array, whereas the claimed "at-least-one substantially linear array" consists of multiple, substantially parallel arrays. The examiner took Official Notice of the fact that color image scanners employing multiple, substantially parallel arrays corresponding to multiple color components are well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ an array consisting of multiple, parallel arrays to scan a color original.

6. Claims 3, 11, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 6-8 and 18-20 are allowed.

8. The following is an examiner's statement of reasons for allowance:

Claim 3 would be allowable because Lien et al. (US 2003/0202219 A1) does not disclose having the user select a particular value for the angle for the image scanning of the image. The angle of Lien et al. seems to be a fixed angle. See Figs. 2A, 2B, 4A, and 4B.

Claim 6 is allowable because the scan bar (110) of Lien et al. (US 2003/0202219 A1) does not include a plurality of sensor elements disposed in multiple substantially linear arrays, each array being tilted with respect to the longitudinal axis of the scan bar at a substantially identical and substantially nonzero angle which is fixed during any image scanning of the image used to create the final scanned image.

Claims 7 and 8 depend on claim 6.

Claim 11 recites the limitation of claim 3. See reason given for claim 3.

Claim 17 would be allowable because the longitudinal axis of the scan bar (110) of Lien et al. (US 2003/0202219 A1) is not substantially parallel to or substantially aligned with the reference axis (X) (Fig. 4B). The limitation of claim 17 in combination with the claim 9 limitation "wherein each array is tilted with respect to a reference axis at a substantially nonzero angle which is fixed during any image scanning of the image" is not taught by Lien et al.

Claim 18 is allowable because Lien et al. (US 2003/0202219 A1) does not disclose a plurality of sensor elements supported by a scan bar body having a longitudinal axis, the plurality of sensor elements disposed substantially in a common plane in multiple substantially linear arrays, each array being tilted with respect to the longitudinal axis at a substantially nonzero angle.

Claims 19 and 20 depend on claim 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Cheukfan Lee  
September 28, 2007